

Press Release

Welsh company makes breakthrough in diabetes management

A small team in Wales is on the verge of a major breakthrough in the management of diabetes, a disease which affects an estimated 463 million people worldwide. Chepstow based Afon Technology has patented the technology for the first real-time, non-invasive blood glucose monitor.

Non-invasive blood glucose monitoring has been described as the holy grail of diabetes and companies like Apple, Samsung and Google are rumoured to be in the race to develop successful technology. To date, nobody has been able to bring such a device to market.

However recent clinical trials carried out by Afon Technology at a world leading clinical trial facility in Germany have yielded exciting results. The ability of the Afon technology device to detect changes in blood glucose compared favourably with a market leading minimally invasive blood glucose monitor. The company will now move into a product development phase, with the intention of having a product on the market within 2 years.

Diabetes is a condition of being unable to maintain normal blood sugar levels, which can cause many serious health problems. Currently the only way to monitor blood sugar levels is via invasive finger pricks or using minimally invasive devices that work by taking samples of interstitial fluid from under the skin, and which give a 15 minute delay on readings.

The Afon Technology solution is a discrete, wearable, completely non-invasive and pain-free wristwatch style device. It will give a real-time indication of high (hyper) or low (hypo) glycemia. It is designed to free diabetics from the pain and inconvenience of finger pricks whilst giving them the confidence that comes with knowing that their blood sugar is maintained within safe parameters.

Good glycaemic (blood glucose) control minimises the risk of long-term complications such as heart attack, stroke, blindness, kidney failure and limb amputations. The Afon device will be an important step towards improving the lives of millions of diabetics by helping them avoid such devastating long-term effects and empowering them to self manage on a more regular basis thereby reducing secondary ailments.

This could have enormous financial implications. According to research £5.5bn of the NHS hospitals budget is spent on diabetes, and poor diabetes control was responsible for £3bn in potentially avoidable hospital treatment in England in the year 2017-2018*.

An American Diabetes Association study last year estimated that in 2017 the total cost of diagnosed diabetes in the USA was \$327 billion, including \$237 billion in direct medical costs and \$90 billion in reduced productivity.

Afon Technology's small multi-national team is led by Sabih Chaudhry. The company is based in Chepstow, on the Welsh side of the border with England and across the Severn Bridge from Bristol.

References:

* Stedman M, Lunt M, Davies M, et al. Compare cost of hospital treatment of Type 1 diabetes (T1DM) and Type 2 diabetes (T2DM) to non-diabetes population (Non-D): a more detailed economic evaluation. Presented at EASD 16-20th September, 2019

For more information:

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